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New Nomads – Mass Air Transportation and the Need for Juridical Institutions to Minimize Cultural Shock †

I. Aviation as an International Communication Medium

> There was a time for each man when he was still adjusted to an environment that no longer existed. All over the world . . . men . . . planned . . . all in the belief that the world as known was the world as it was . . . *They trusted the picture in their heads.* [Emphasis added.][1]

This quotation was written in a mood of reflection upon the effect of world war on a particular group of men. What made these men particular was the absence of communication informing them that much of the international political framework has shifted dramatically throughout the world; that much of their daily routines, planning and organizing had been, unknown to them for a period of time to come, substantially alerted. Thus does the relative speed of communication affect the most mundane aspects of our individual environments.

Customary and formalized laws among nations were affected without due regard from the forces precipitating change. During the twenty-five

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†This article is based on a report of a study, conducted by the author in Montreal, Canada, between 1967-1970, with respect to the role of rapid and massive international commercial aviation in the intensification of alien cultural conflicts. The article has been prepared, as was the prior report, as an interdisciplinary study, and being a biochemist by training as well as an attorney, the author has expressed his legal arguments and conclusions in biological concepts. The author explains, by way of example, that he has made "the reasonable postulation that culture is an intellectually articulated response to man's biological requirements" and that, since legal institutions are cultural components, "*ergo*, legal institutions are intellectually articulated responses to biological requisites." The author's discussions and arguments are set forth in a framework almost universally recognized – *i.e.*, the characteristics and consequences of alien cultural confrontations arising from rapid and massive movements of people about the world by international commercial air transport. (Editor's note).

[1]Lippmann, W., *The World Outside and the Pictures in Our Heads*, MASS COMMUNICATIONS – SELECTED ESSAYS 435 (ed. by W. Schramm 1949).

years following World War II the effects have been seen of too rapid a world communication network upon national, regional and inter-regional jural relations. Specific cultural environments are tested at every turn by alien cultures through advancing technology in the realm of written, verbal and visual communication. In the period 1970–1990 the world anticipates significant steps toward an inadequately defined objective of international cultural homogeneity; and the most influential instrument along this avenue toward reduction of cultural differences is the displacement of whole populations by rapid mass air transportation.

Scholars throughout the world are recognizing the explosive, but subtle, increase of significant interaction, and ensuing interdependence, of individual members of the world community. The transnational flow of people is taking place presently at a rate that defies measurable and meaningful comparison, except in very broad generalities. No longer are the majority of international contacts limited to the officialdom shared by government elites, nor are the traditional communications of the "True Word" and professed superior cultures restricted to the arrogance of early missionaries.

II. Aviation Statistics and the International Displacement of Cultures

In evaluating recent and projected international aviation passenger statistics for meaningful trends in culture movements, certain descriptive terminology is used: e.g., *culture, cultural migrations, cultural confrontations, cultural conflicts* and *cultural accommodation.* Although the terms are, by themselves, a substantive and integral part of the non-statistical evaluation of rapid and massive air passenger transportation and its effects upon indigent values, it is important to grasp their significance at the outset in order to provide a meaningful environment in which to discuss the implications arising from aviation statistics.

An excellent definition of culture is offered by Sargent and Williamson who observe that "the culture of any people is a unique set of solutions to biological and social needs in general."[2] Unfortunately, the definition implies rather strongly that a notable distinction exists between biological needs and social needs. A more accurate definition, and one which will be used herein, is "the culture of any people is a unique set of solutions to biological needs as articulated by specific social values." Actually, one of the principal concerns of the present discussion lies with the relative

[2]S. SARGENT AND R. WILLIAMSON, SOCIAL PSYCHOLOGY: AN INTRODUCTION TO THE STUDY OF HUMAN RELATIONS 60 (2d ed. 1958).

ecological dictates of a society manifest in the forms of its particular values, which in turn are intellectually articulated as juridical norms.

In passing, it should be noted that cultural values, or juridical norms, are not a permanent solution to bio-ecological requirements of specific geoethnic communities. As observed by Goldschmidt,

> culture is not passed on intact, like an heirloom, from one generation to another without changing. It changes constantly, *but the changes are slow enough that the basic features remain constant for at least a generation and usually considerably longer.* (Emphasis added.)[3]

Of course, the present concern is with the speed of change, the influence of alien cultures upon that factor, the effects upon the social values of the indigent society, and the overall effects in both the non-law and legal fora of international relations.

Without appropriate statistics, most of the foregoing observations remain assumptions. Critical to an investigation of the effects of rapid and massive cultural confrontations are the data indicating how much, where to, and how fast people presently are being moved about the world by aeronautical means. Equally critical are the statistical forecasts for the future and the projected instruments for facilitating this facet of mass communication. For purposes of the ensuing discussion, the premise is accepted that international civil aviation transportation is increasing dramatically all over the world, bringing into rapid contact massive numbers of people with significantly alien cultural backgrounds.[4]

One of the most significant factors in the intensification of alien cultural confrontations is the dramatic technological evolution in aeronautical engineering. Quite simply, the supersonic transports, jumbo jets, and various stretch versions of these aircraft, will not only move massive numbers of people about the world, they will be transported at frequencies and speeds difficult to imagine—and difficult to accommodate within the present framework of parochially internationalistic and individually nationalistic attitudes.

III. Evolving Pattern of Mass Cultural Confrontation

Statistics show that present international air travel is a substantial instrument in the international communication media; that air travel, within the framework of speed, quantity and frequency, is a unique, as well as integral, facet of international communication; and that the potential of this

[3] *Id.*, at 61.

[4] For statistics strongly supporting this premise, *see World Air Transport Statistics*, IATA, No. 12 (1967).

factor for intensifying cultural confrontations is somewhat alarming in view of the new era of jumbo transports and potential commercial supersonic jet fleets.

However, operational statistics of the world's airlines and manufacturing industry, alone, do not provide a complete picture of what is occurring in terms of the types of unique and regional cultural characteristics that are being affected. It also is necessary to make a reasonable determination of the geographical movements of cultural representatives, the intellectual-professional-economic characteristics of such representatives, and the relative scale of their predominance as a particular culture within the communicative terms of reference. However, for purposes of the present discussion it is sufficient to accept the fact that

> the businessman himself is no longer the leading representative of those travelling for professional reasons. There are now representatives of the liberal professions, teachers, management staff from the public or private sectors, engineers, works foremen, skilled workers, etc.[5]

Even more important are the exploding tourist markets for the airlines wherein masses of students, housewives and the evolved commodity known as the "businessman-tourist" are reviving the Victorian concept of the "Grand Tour," reserved throughout history (until the present) to the financial and social elite. Because of the manner in which most, if not all, of the world's representative cultures can be visited by large masses of people in a period of four to six weeks, all of the communicative opinion-forming problems attendant to the Grand Tour are ripe for unbelievable degrees of intensification and consequent conflict in the many politico-legal arenas available.

Not only has there been a diffusion of air traveller characteristics into a broad socio-professional category—there is a jolting impact on air travel caused by a diversification in the nationality and age group of the potential airline passenger market. Because of the heavy post-war population increase, which presently is exercising effective influence within the framework of all social and economic disciplines, there are increasingly large numbers of young people in a position to travel by air.[6]

In short, a very distinct pattern is developing rapidly, indicating massive

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[5]*The Traveller—A Modern Proteus*, ITA BULL. No. 4, p. 75 (1968).

[6]*Id.*, at 76. The importance of the younger, or student generation to the phenomenon of mass interactions of alien value institutions is observed throughout the world in current political events. Not only are young travellers seeing at first hand the unfamiliar value institutions in conflict with one another, they are pausing long enough in a relatively transigent period of their lives to participate actively in such conflicts, thereby introducing many times a totally new set of values to the indigenous participants. *See generally, Characteristics of Foreign Travel by U.S. Citizens*, ITA BULL., No. 23, 731-739 (1967).

confrontations of cultures from geo-economically disparate regions. People are not only communicating alien socio-ecological traits, the audiences indigenous to the locations visited are physically capable of interacting with these alien traits. Often, the interaction is demonstrably detrimental both to the precepts of progressive and harmonious international relations, and to the indigenous cultural institutions. How this occurs depends fundamentally upon the cultural manifestations of a given societal ecosystem.

IV. The Ecology of Man and Its Ultimate Influence on Cultural Variations

Previous discussions have implied deficiencies in responsiveness of existing legal theory and institutions to the ecological necessities and realities of man as a biological entity and as a representative of a bio-social grouping, i.e., those realities tending toward distinction, rather than unification of mankind. In the following discussion, attention is directed at both broad and relatively isolated principles which express the ecology of man in terms of the bio-sociological manifestations of his ecosystem. It is an attempt to recognize the measurability of man's biological necessities and the relationship of those requirements to value-forming processes and consequent cultural characteristics.

Essentially, ecology is the natural discipline which emphasizes the study of relationships between living organisms and their environments. To attempt a very concise and uncomplicated definition is to run the risk of overlooking covert, but significant, implications which give substance and objective meaning to ecological study. It is difficult at best to attempt application of strict scientific definitions and methodology to the social sciences and their jurisprudential progeny "because of the problems of contingency, purpose, universal change, and universal interrelatedness" evolving from man's expanding knowledge and awareness of his relative significance within his eco-system. His increasing ability to control his socio-ecological conditions also makes scientific definitions and methodology, vis-à-vis group characteristics, imprecise. However, the basic ecological components of any non-abstract environment may be grouped as follows:

Abiotic – non-living, relevant and influential factors on organisms (pure elements, mineral complexes, water, air content, etc.); and
Biotic – living organic elements influential in a given ecosystem.

An ecosystem includes the interrelationships of all abiotic and biotic components of a particular environment. In a strict sense, the entire world

could be considered a gigantic ecosystem; and to the extent that man inhabits or has extended his culture to most areas of the Earth and near space, the present observations may be considered geographically expansive in undertaking. However, the scope of study can be restricted fairly and effectively to an area which reasonably can be managed. In the discipline of ecology, one who confines his interest and methodology to a single biotic species, and its reciprocal cause-effect relationship with the environment, is referred to as an autecologist.[7]

A basic principle in the physiology of all living things is that they have a range of tolerance for each environmental influence—referred to as *limiting factors*. The range of tolerance may be narrow, or broad, and in man the tolerance may range from minute toxic bacteria to the influence of the size of the human population, itself. In the ecological vernacular, *stratification* may be defined as

> "... a vertical layering of organisms or environmental conditions within a biotic community; it should not, however, be confused with zonation, which more properly refers to the horizontal arrangement of biotic or abiotic factors."[8]

In continuing the definition, Knight observes that "[s]tratification of the biotic element is obvious even to the casual observer because the living components can readily be identified and counted. The abiotic factors . . . are seldom seen, nor are they often measured with ease." In terms of man, the identification and measurability of stratification may not be so easy. Identification of stratification as between man and sub-species is fairly uncomplicated. However, exploding population and insufficient food and territory requirements are tending to move human communities from zonal, or horizontal, relationships with one another to vertical relationships within the species, itself. The ostensible reason is internal competition for survivability. First, man's fecund nature and technological capacity to prolong life have created an imbalance in the nature of his immediate ecosystem. Second, man has created an intellectual fiction designed to remove himself from the sordidness of natural laws in process. This has tended toward intellectual avoidance of recognition of the precarious position in which *Homo sapiens* has been placed vis-à-vis the realities of natural selection and the ecological law of *adaptation*. In effect, the situ-

[7]Opposed to autecology is *synecology*, which is an approach emphasizing not just one species, but the total biotic and abiotic community relationships in a given ecosystem.

[8]C.B. KNIGHT, BASIC CONCEPTS OF ECOLOGY 13-14 (1965). For a general discussion relating to internal bio-ecological stratification, see W.C. Allee, *Dominance and Hierarchy Among Vertebrates*, 34 COLLOQUES INTERNATIONAUX DU CENTRE NATIONAL DE LA RECHERCHE SCIENTIFIQUE (March 1950).

ation encompasses a conflict between man's intellect and the laws of nature.

Another basic principle of ecology is the *law of multiplication.* Obviously, each individual within any species and, indeed, the entire species itself, is subject to many hazards and potential catastrophies which make its continuing existence tentative at best. To ensure continuation, and recovery from catastrophic adverse influences, each species has the capacity to reproduce itself. The counterbalance to the threat of unchecked multiplication is the *law of control.* Insofar as man is concerned, a strange paradox appears to be occurring: The law of multiplication, designed to ensure recovery and continuation, has been so successful—both through the technological and ideological attributes of his intellect, and his present inability to apply his intellect functionally in balancing the overcorrection of multiplication[9]—that it is rapidly assuming the role of the *law of control.*

From the above, it can be seen that all life-forms are confronted with a two-sided challenge: (1) they must succeed in the struggle for survival under given ecological conditions, and (2) they must be able to reorient themselves to changing conditions in a manner that will ensure success over competitors. In man's ecosystem, change includes the intellectually abstract as well as the genetic and the intrinsic environment, and survivability is limited principally to competition among its own kind. Therefore, with the realization of human intellect the normal progression of man's bio-sociological evolution seems to have reached a turning point. Previously, all forms of life—including man and his sentient progenitors—were subject to "automatic natural controls." No living organism could excel in survivability and/or multiplication without confronting the natural limiting factors, or ultimate controls, that would return it to its proper place, thereby correcting the imbalance in the particular ecosystem. However, through the use of his intellect, man has escaped partially from the controls of nature, has overheated several laws of ecology, and has placed his intellectual values at odds with the realities of his biological requirements and consequent ecosystem.

A vast number of various organisms have been studied in terms of their innate behavioral drive to disperse, i.e., to move away from a particular ecosystem in which they have been successful biotic components. In a majority of cases the principal reason for dispersal is a variation of relative

[9]If the time lag in the adjustment of an entity (individual or group) to significant changes in its environment is too great, "catastrophe will probably result for the entity." In the case of man and his rampant proliferation, the paradox may truly arise from inappropriate timing through a cultural lag, i.e.,,when the culture does not respond rapidly enough to correct an ecological imbalance.

survivability. For example, the law of multiplication and of control may have come into conflict. Inter- and intra-species competition for food, mates, shelter and predation may no longer be optimal for a given species, and mobility and relatively broad tolerance for adaptability will permit dispersal to similar ecosystems. However, some species which show an innate drive to disperse, do not do so because of adverse physical conditions of their respective environments. In these cases, movement away from inhabited areas occurs despite adequate food supply, optimal climatic conditions, and acceptable density values for the particular species. For man, history is replete with mass migrations brought about by political and religious persecution, and unresponsive social conditions generally.

Although technological advances in transportation modes have facilitated this type of dispersal, it has not been the reason for mass migratory movements. In one respect, however, the *availability* of rapid transportation has provided the reason for temporary mass migrations, which we identify, of course, as the growing tourist market. In relatively permanent migrations, the phenomenon of dispersal as a congenital drive, or as a consequence of physical or social incompatibility, appears to contradict a genetic manifestation which only recently has been discussed as innate in *Homo sapiens,* as well as the lower vertebrate orders. This manifestation which apparently derives from genetic coding, has been described by zoologists employing ecological methodology as the "home range" instinct.

According to observations of some zoologists, a phenomenon has been discovered to exist among animals wherein

> . . . portions of a habitat or several continguous environmental areas will constitute the region over which an organism moves while engaged in routine daily activities. Such an area is called the *home range.*[10]

Other scientists more concerned with derivation of this type of behavior have referred to it alternatively as the *territorial imperative.* Until recently, it was believed that any species of animal which organizes a home range did so unconsciously and without any awareness of the pattern of the activity, i.e., it was a consequence of natural selection and other genetic influences interacting over a protracted period of time. The professed exception, of course, was man who, it is now believed by some naturalists and geneticists, manifests distinct characteristics of identification with certain geographical parameters—if not physically, then quite certainly intellectually.

Returning to the fundamental implications of territorial orientation, the

[10]*Op. cit., supra,* note 8 at 142.

establishment of home range areas is of great significance to bio-ecological requirements of the organizing species. The pertinent requirements are, of course, survival-related, since adaptation to a particular geographic area will provide essential assistance in the primary activities of mating, sheltering, food procurement and avoidance of natural predators.[11] Relative values of the home range are cultivated and not genetically dictated as are the objects to which these values are applied. In the lower vertebrate orders the survival values of the home range often take the form of total familiarity with the area included in the physical parameters. Familiarity develops from routine use of the area and awareness of landmarks. The longer a particular organism cultivates a specifically defined home range, the greater will be its familiarity with the landmarks and physical avenues of self-preservation. In all probability, the organism will improve continuously on the relative impregnability of its home range to predators.

A very significant facet of an active defense of a home range is that, if successful, the life cycle requirements of the defending organism will be ensured. Further,

> [d]efensive behavior within certain areas will restrict the population density of the species for the region, thereby preserving the carrying capacity of the ecosystem . . . This, in turn, *will prevent serious damage of the habitat by overpopulation.* In view of these facts, territoriality insures the survival of a certain percentage of the population . . . *Excessive fighting is eliminated because any one member of a population will come into contact with relatively few individuals of his own species in areas where territories are well-established.* (Emphasis added.)[12]

The applicability of this observation to man may be apparent to the casual observer, but it is well to recognize an additional characteristic which brings the applicability of home range defense to man into even sharper focus:

> Territorial defense tends to severely limit social activity that may at times be beneficial to the population. In species with strong territorial tendencies, the amount of cooperation . . . is practically non-existent during periods of defensive behavior . . . At times, though rarely, territorial behavior and social cooperation are modified so that an organism may benefit from group action and at the same time take advantage of territorial qualities of merit.[13]

One of those rare times when group action and individual territorial

[11] "Psychological home range of man" is an integral facet also of self-identity with defined territory.

[12] *Op. cit., supra,* note 8 at 161-162. *Cf.,* G.M. Pitt-Rivers, *The Clash of Culture and the Contact of Races* (1927). *See also* W. Heape, *Emigration, Migration, and Nomadism* (1931), in which the theories of territoriality and intercultural contact are discussed.

[13] *Id.* Knight at 29. *See* also Allee, *Animal Aggregations* (1931); and N. Tinbergen, *Social Behavior in Animals* (1953).

drive are integrated to preserve the geographic parameters of a particular ecosystem can be found in the behavior of man. However, to give validity to this extrapolation and avoid apparent contradictions as between specific arenas, it is necessary to specify the scope of the interests or objectives of the group action; e.g., intra-national, national, regional, or international. The relationship of this form of group action to the preservation of the carrying capacity of a limited ecosystem is quite apparent, and it becomes more obvious, vis-à-vis mankind, as the total world population increases dramatically in number and frequency of individual and group contact.

One ostensible contradiction to the home range concept is the principle of *ecotones*. For present purposes, absolute measurability of the distinction or dividing line between two or more biotic provinces is impractical, if not impossible. There is, instead, an inter-ecosystem buffer zone, i.e., a mutually accommodated tension zone referred to as an *ecotone*.

Placing aside for the moment geographic delineations of a political nature, a general characteristic attendant to ecotones of human communities (as with lower life-form communities) is that one often will discover a greater intermixing of alien cultural representatives, and a greater density of these representatives than in the particular geographic communities from which they derive. Those forces which tend to drive a species into the geographic area of an interphase tension zone usually, at the outset, are physiographic influences such as climatological, geological, or nutritional resource changes in the principal community area. The tension zone represents a modification of physiographic factors which are acceptable to the organisms finding refuge there. In the ecotone, one finds the most tolerant and adaptable of any given species, in terms both of physical adaptation and, as with man, the capacity of compromise of legal and other less quantifiable intellectual institutions which are cultivated (whether or not directly responsive to bioecological requirements).

The place of mankind in the scheme of the territorial imperative is, at best, extremely difficult to isolate and identify. The principal reason, perhaps, is that the primary expression of this instinct involves not only geographic characteristics, but a unique integration of these characteristics with intellectual value-forming processes and consequent cultural institutions. Therefore, prior to turning to a bio-ecological evaluation of "nationalism" as an intellectualized phenomenon roughly synonymous with the home range of *Homo sapiens*, it is essential to recognize the relationship between human genetics and cultural values.

For many years bitter issue has been taken between geneticists and the composite group known as social humanitarians regarding the extent to

which genetics is a controlling factor in the affairs of mankind. Not only has the controversy been endless, it has been so covetous in the extreme of points of view that false intellectual parochialism has almost blinded the participants to the deep interdependence of biochemistry with its environment. In the physical and social sciences, the antagonists have been referred to as hereditarians and environmentalists, respectively. Despite this, between the extremes of the two camps there are varying degrees of opinion.

From a strictly functional view, neither factor is more influential than the other since it is the interdependence of the two which has sociological and juridical significance. For purposes of the present analysis, it is essential to avoid entrapment in the argument of which is the most controlling in human matters—heredity or environment—since, in fact, that issue has no anthropological significance. The true significance lies in the relationship between "nature" and "nurture."

As discussed at an earlier point, culture may be defined as "a unique set of solutions to biological (hereditary and physical environment) and social (values responding to bio-ecological requirements) needs in general."[14] Culture, therefore, may be said to vary proportionately[15] with the variation in nature-nurture requirements peculiar to given human communities. Further, qualitative and quantitative collective mental development is a principal influence in the value-forming processes which give variation to cultural characteristics from community to community.

For those who approach the evaluation of cultural and inter-cultural conflicts from the point of view that value-forming processes involve cause and effect of natural laws, the measurability of those relationships provide the foundation upon which to construct realistic institutions for accommodating cultural characteristics and inter-cultural conflicts. On the other hand, attitudes regarding the measurability of nature-nurture relationships and their effects on the cultural affairs of man are very likely to be influenced, or dominated, by the orthodox social beliefs to which each individual is committed in varying degrees. Taking into consideration these influences which tend to modify objectivity in observing and evaluating human capabilities and conduct, attention is turned to the discussion of

[14]S. SARGENT AND R. WILLIAMSON, SOCIAL PSYCHOLOGY: AN INTRODUCTION TO THE STUDY OF HUMAN RELATIONS 60 (1958). Although physical cause and cultural effect may be observed and, to a degree, measured, it is not possible presently to isolate definitively the organic reason for culture.

[15]It should be noted that the proportionate variation of culture to nature-nurture requirements is very rarely immediate. Often, the lag in cultural response (i.e., specific legislation, regulations, treaties, etc.) to ecological changes is of sufficient duration to render that response obsolete at the moment it is fully matured.

man's socio-cultural activities as responses to specific bio-ecological environments.

V. Culture as a Collective Response to, and Integral Part of, the Human Ecosystem

In considering the bio-social evolution of man, it is important to keep in mind that he is, even to the casual observer, an organism endowed with a unique trait to fight for his survival. That trait, of course, is his level of sentiency. For that matter, one need only look at the fighting *instinct* of the higher animals and the anatomical attributes equipping them for the successful execution of this instinct, in order to recognize the essential nature of inter- and intra-specific conflict to the struggle for survival. The concomitant of the parasympathetic nervous system's "fear" is the action of flight or the willingness to fight. This willingness to fight may be considered as one of many manifestations of the desire to live. In terms of the present study, "[o]ne of the most conspicuous features of the fighting instincts in animals is that it frequently takes the form of group pugnacity."[16] *Homo sapiens* is not exempt.

To a certain extent, the social instinct (or group pugnacity) among humans is more easily discernible among primitive tribes than among the well-cultivated communities of advanced civilizations. This does not mean that the group pugnacity attendant to social instincts atrophy proportionate to the degree of juridical sophistication or other cultural complexity. As so aptly pointed out by Karl Pearson,

> [n]o tribe of men will work together unless the tribal interest dominates the personal and individual at all points where they come into conflict.[17]

The principle involved is the survival of the individual through the continuing physical integrity of the whole. As discussed further, below, no matter how intellectually rationalized to the contrary, this may be said to be the precipitating factor in the evolution of man's social instinct. The above are accounts of man's physical or violent fighting instincts on behalf of his community and, ultimately, himself. Legitimate refutation of this view may come in the form of requiring account to be taken of those higher virtues of man which lead him to self-sacrifice for family, community, country and, indeed, even humanity, itself. To keep the answer within the

[16]S.J. HOLMES, HUMAN GENETICS AND ITS SOCIAL IMPORT 274 (1936).

[17]Pearson, K., *National Life from the Standpoint of Science*, EUGENICS LAB. LECT. *Series* 11 (2d ed. 1905), quoted in HUMAN GENETICS AND ITS SOCIAL IMPORT, *supra*, note 16, at 277.

present framework of a bio-ecological analysis, resort—perhaps refuge—is taken in the strictly Darwinian view. Self-sacrifice in terms of high intellectual and moral motivation is, as with the violent fighting instinct, an instrument of natural selection often essential as a "survival in the struggle for existence" of a given community, or humanity generally, as opposed to other competitive biotic entities. It may be considered a cultural response to overpopulation of hyper-intracompetitiveness of the human species.

Having considered man's pugnacious and passive instincts oriented toward group and individual survival, it is helpful to evaluate the causes for conflict, or interference with interests, which necessitates the expression of those particular instincts. Since the instinct of unselfishness and passive self-sacrifice are manifest in varying degrees and forms on a continuing basis consistent with perpetual, non-violent cultural conflicts, emphasis in the ensuing discussion is placed upon the causes which are so intense as to necessitate the instinct of pugnacity, i.e., the reasons for human conflict.

Although the basic reasons for intraspecific warfare among mankind still are found in bio-ecological relationships, and even though cultural characteristics are intellectualized re-responses to these relationships, it often is very difficult at best to determine (1) whether cultural variations, of themselves, provide the reasons for conflict; (2) whether basic bio-ecological requirements, alone, are the cause; and (3) whether it is a sophisticated combination of these two which precipitates conflict. In fact, it is almost impossible to speak meaningfully of human warfare without a continuous recognition of the significance of the relationship between the two. However, for practical purposes, a distinction is made herein—one regarding biological precipitants and one regarding cultural motivations.

The biological causes of war generally lie in the ultimate objectives of fundamental drives, such as nutrition, sex, home territory and self-preservation. Violence among individual animals derives mostly from competition with different species for food. With respect to violence among members of the same species, the fundamental motivations are sex, territory, dominance and general activity. In animals whose activities are motivated by the societal instinct, referred to above, the principal cause of intersocietal conflict, or aggressive group hostilities, are the "needs for food or territory and in some instances by the urge for migration or parasitic dominance,"[18] the latter two of which are directly related to the former. Although all animals are equipped in varying degrees and manners for self-defense, the most common reactions in confrontations of individuals is flight. Within the framework of community and social associa-

[18]Q. WRIGHT, A STUDY OF WAR 520-521 (2d ed. 1965).

tion the common reaction is one of group aggressiveness, pugnacity, or combined hostility to preserve the societal interests.

Conflict within a cultural context is constrained to human communities. Although the primary drives leading to hostility and intergroup pugnacity among the lower orders of animals and among primitive peoples are also common to "civilized" societies, the intensity of their importance has varied. It has been suggested that food and sex have been of "relatively little importance in the consciousness of civilized people when they make war, although their unconscious influence may be important."[19] The important distinction, of course, lies in the use of the words "conscious" and "unconscious." With the capacity to rationalize consciously and intellectually, man can ascribe (and usually does) any justification for hostility to cultural values. The "unconscious" influences are, of course, the primary drives, or bio-ecological imperatives.

As discussed above, one of the essential principles of ecology is the law of multiplication. Insofar as man is concerned, population has become an extremely significant factor in his ecosystem that has resulted in basic conflicts between principles of ecology and cultural values. Advances in agricultural technology have increased the extent of subsistence available; medicine has prolonged the need for this subsistence; and material and "spiritual" value for human life, all have contributed to overpopulation, not only in terms of nutrition available, but perhaps most important, geomorphically. If a human population grows in a manner disproportionate to other components of its ecosystem, the subsistence level or acceptable standards of living (including the expression of certain cultural values such as freedom of movement and speech) diminish to the point that members of a community will migrate to more accommodating geomorphic conditions, and less restrictive or alien cultural impositions.

It is seen, then, that a particular biological drive resulting in inter-group conflict will derive from the similarity and relative continuity of responses of one community to similar stimuli in their common ecosystem. The manner in which the drive is expressed results from similar nurturing of inherited tendencies common throughout a population. Here, of course, reference is to the particular manner in which group hostility is manifest, i.e., the cultural justification for biological warfare.

As a general rule, relatively permanent dispersal tendencies by members of a given community have bio-ecological origins. A consequence of dispersal is to increase the chance of contact and ultimate conflict with other communities. This area of increased contact already has been re-

[19] *Id.*, at 131.

ferred to as an ecotone, tension zone, which may occur on an inter-community, international, or inter-regional basis. In strictly cultural terms, conflict among societies will arise from their consciously pursuing exclusive values. Opposition normally follows the recognition of mutual ecological requirements whenever two or more alien individuals or societies come into contact within the same ecosystem. If the contact is sufficiently direct and conscious, such opposition may intensify into conflict, especially if the geomorphic part of the ecosystem is more familiar to one group than the other.

In carrying a step farther the application of tension zone characteristics to community interaction, Quincy Wright estimates the measurability of intergroup tensions as being directly proportionate to "changes in the indices of friendliness or unfriendliness of each group toward the other." This seems fairly uncomplicated and straightforward. However, the significance of the changes, the biological value of hostility intensification within the framework of cultural variations permitted by intellectual institutions (juridical systems), is very rarely ever identified or properly valued before conflict occurs. The intergroup tensions, according to Wright, "appear . . . to increase if the material contacts between the two groups increase without integration of their institutions, or if their institutions differentiate without a diminution of their contacts."[20] Conversely, the extent and intensity of intergroup material contact often serve to disclose fairly accurately the actual conditions of intergroup relations. Put another way, "tensions between groups . . . usually increase in proportion to the increase in the disparity between their conditional and their symbolic relations."

One of the most remarkable sociological phenomena of the nineteenth and twentieth centuries has been the almost overwhelming increase in physical contact between representatives of cultural groupings throughout the world—in terms both of personal communication and produce distribution. An increase in material contact, or economic interdependence, between two or more countries or regions often has been accompanied by attempts to accommodate alien social and ideological differences.[21] If accommodation did not keep pace with the growth of strictly economic interdependence, intercultural tensions usually would begin to arise. In the decade immediately prior to the outbreak of World War II, tensions bor-

[20] *Op. cit., supra,* note 18 at 1114-1115.

[21] "Accommodate" is used to distinguish from the psychological completeness of "assimilation." Accommodation, here, is meant to imply the administrative function of permitting the transitory introduction of an alien cultural characteristic in such a way that consequent tensions with the indigenous culture are minimal and acceptable.

dering on multinational open hostility were the general rule. Reaction to the most expeditious means of diminishing the tensions varied between (1) reduction of contacts through isolationist policies, and (2) increasing social, contractual, and ideological contacts as a means of forcing accommodation of alien cultural characteristics.

Personal or economic contact usually brings participants into immediate conflict regarding the necessity of compromising socio-ecological group interests. Continuing contact normally begins about *gradual* accommodation through the diminishing of tensions in which there is "common acceptance of certain symbols, conventions, ideologies, and institutions."[22] For the most part, economists can describe and project accurately what the existing conditions are and what they will be in the reasonably foreseeable future—all technological factors considered. Unfortunately, such descriptions and projections contribute very slightly to enlightment as to the consequent psycho-cultural tensions which arise from economic contact or integration.

Economic evaluation fails, as an international or intergroup panacea for tensions of contact, in that it is not capable of anticipating the intensity and relativity of interpretation by participating groups of their respective socio-ecological interests. What economic methodology assumes is that its principles take form in a culturally static environment. It assumes that the world population is equivalent in intelligence and reasonableness, and that conditions and opinions surrounding any given situation would be shared by all observers. In reality, of course, opinions of alien cultural groups often differ significantly regarding a given set of conditions. Interest values and consequent expectations are, as a rule, not only inconsistent regarding different cultural groups, but also with respect to the ecological significance of those conditions. Variations in the extent of knowledge and sapiency of individuals and cultural groupings also play a significant part in the manifest inconsistencies.

It can be seen from the above discussion that the two principal issues involved in cultural conflicts are (1) the degree of bio-cultural change or compromise necessitated by contact, and (2) the element of time involved in successful accommodation of changes so required. Therefore, it is logical at this point to turn attention from those characteristics subject to change to the conditions which tend to inhibit accommodation of change. The most fruitful source of information for this analysis is the historical roots of "nationalism," perhaps the most effective contributor to inter-

[22]*Op. cit., supra,* note 18 at 1115.

cultural tensions, and the most significant factor militating against cultural accommodation, if not integration.

VI. Historical and Psychological Roots of Nationalism: Factors Tending to Inhibit Intercultural Integration or Accommodation

Recent writers have attempted to recognize the causal characteristics in terms of "ethnocentrism," or isolated communities of culture. Actually, cultural unity is not essential even to a non-political, geomorphic nation. However, it should be kept in mind that exceptions to a rule may weaken its integrity without destroying its usefulness. In the present context, total cultural continuity of a group of people is helpful in determining intercultural distinctions, but there may be exceptions which can strengthen observable nationalism as well as detract from it.

Unfortunately, the political need for universal human equality in the past century has caused wholesale denunciation of biologically-oriented sociologists and political analysts. Consequently, nationalism is discussed principally in terms of a common geomorphic environment (i.e., *a country*) and a common, shared history; but with little discussion or understanding of the precipitant factors making a country or a history "common." The significance of this observation in the present context lies in the fact that the existence of a world-wide community, insofar as massive and rapid interpersonal communication through aviation is concerned, rests predominantly upon economic policy determinations and not upon evaluation of all bio-ecological principles shared by mankind.

The most significant influence leading to cultural homogeneity among individuals and groups is, of course, the degree of qualitative intensity in communication existing between them. In turn, the most significant implements in the communication process are transportation (including electronics) and economic intercourse. Obviously, similarity in speech habits, social customs, cultural stratifications, etc., all play a significant role in determining the manifestations which indicate homogeneity among a group or groups of people. However, it usually is the need for commercial intercourse and the *quality* of transportation available which provide the impetus and capacity to communicate the intergroup similarities. Also of great influence in the degree of intergroup homogeneity (the necessary foundation for a world-wide community) is the extent of discontinuities in electronic and physical communication, social custom, speech habits, etc.

Since geographic and cultural abstractionisms are the principal means of

distinguishing between two groups or communities, it is appropriate to refer to the distinctions as geographic nationalism and cultural nationalism. This reference to nationalism may be subdivided further by recognizing differences in religious customs, commercial habits, and other value-forming processes, all of which may separate groups in the sense of national characteristics despite a high degree of transportation and economic interdependence between such groups. Additionally, history has shown commercial and transportation interdependence among groups to be more flexible than strictly cultural characteristics by which a specific community, or nation, can be identified. For example, history also has shown that extensive economic interdependence may exist for long periods between two communities having significant cultural discrepancies, but without any awareness, or understanding (or the desire for such) of one another's distinctive cultural traits. The existence of trade for protracted periods under these circumstances undoubtedly results from concentration upon commerce and avoidance of cultural proselytizing through massive contact between representatives of the two communities. Those elements which form a "national or distinctive culture cannot be described in one word or even a simple phrase. These elements are moulded by the unique value-forming processes of a community based upon

> the acts we see, the words we hear, the things we touch, [which] are set . . . in the background . . . [consisting] in each culture in the particular behavior we do *not* see, because there it is regarded as unseemly, the words we do not hear because they may be *tabu*, the things which are not there because they are not used. Silences are eloquent. Without silences there is not speech.[23]

Behind the visible manifestations of behavior there is an invisible "configuration of values" dictating the "do's and dont's . . . [discriminations] between actions as good or bad, beautiful or ugly, familiar or strange, safe or dangerous, interesting or indifferent." As seen above, the processes of valuation leading to cultural characteristics and legal institutions are distinctive responses of communities to bio-ecological requirements and influences, as well as products of cultural characteristics which have become value-dictating ecological influences, themselves. For the most part, this invisible configuration of values remains relatively stable and distinguishable from those of other dissimilar communities for two reasons: (1) uniqueness of the immediate ecosystem, and (2) it is vastly more difficult for men to communicate intellectual abstractions across cultural barriers than within the same shared cultural framework. Consequently, it

[23]K.W. DEUTSCH, NATIONALISM AND SOCIAL COMMUNICATION—AN INQUIRY INTO THE FOUNDATIONS OF NATIONALITY 14 (1967).

may be said that the intensity of nationality, or community distinctiveness, pivots upon facility and quality of communication of value-forming processes shared by members of the community. Conversely, the dissipation of parochial nationalism depends upon the ability to (1) recognize ecological influences common to two culturally distinct communities, and (2) communicate effectively, on an inter-community basis, the consequent value configuration.

The more extensive the cultural ecosystem of a given community, the more extensive the national characteristics. Of course, this does not mean easy dissolution of distinctive characteristics. It simply means that with quality communication regarding shared cultural and physical influences, the parochial national characteristics become proportionately less significant within the framework of the larger, expanding and shared ecosystem. The expansion of a community's ecosystem to include those of others depends, in large part, upon inter-community cooperation which, in turn, depends upon the quality of, and capacity for, communication.

Resort to psychology is not, of itself, the tortuous avenue to understanding culture or the cultural components of the elusive political concept of nationalism. Rather, it simply is one methodology for isolating and understanding the significance of particular individual and societal actions, i.e., reactions to recognized stimuli. Progress in understanding cultural unity and the barriers to cultural integration can be achieved only "by selective strategy rather than by an over-all, indiscriminate rush at the objective." In this sense, psychology plays no greater role in interpreting cultural variations than biology, anthropology, climatology, or the study of cultural patterns provided by recorded history.

Much has been said of the value of discovering the elements of pan-human psychic unity through psychological methodology as a means of providing the framework for inter-cultural integration; for emphasizing the common motivations of mankind and diminishing those which culturally are irreconcilable. However, the doctrine of the "psychic unity of man" is certainly not a settled one even in theory. The functional information which might be derived from such a phenomenon is far from being available. In the meantime, accommodation of cultural differences must continue to be attempted and the selective research of all the scientific disciplines must be relied upon.

As progressively more knowledge of the physical and intellectual relationships becomes available through isolated investigation, the role of generalist will pass from the anthropologist to the ecologist. Despite the futurity of this event, psychologists already have made observations and

constructed principles from isolated investigations which are helpful in formulating an institutional framework which can accommodate cultural variations and dissipate conflicts arising from sudden cultural confrontations.

For the most part, modern psychology has emphasized the mechanics of the stimulus-response phenomenon introduced into sociological jurisprudence by Jeremy Bentham. Concentration principally has been upon the flexibility of the human learning capacity in different learning environments. The general approach therefore, has been to "proceed professionally *as if* individuals differed only in their environmental exposure and life experience and not in their genes."[24] In this context, psychological bases have been established for (1) recurring cultural inventions, (2) stabilizing of social habits through repetitive stimuli which often are peculiar to a specific community, (3) advancement or extinction of technologies, (4) emotional foundations of the inventive capacity, and (5) "the restlessness, tensions, surplus of energy, desire for change rather than for security" which underlie varying manifestations in fashion of style and dress. The manifestations for these bases of conduct are in attitudes, both of the individual and collectively in cultural groupings—and it is the attitude with which psychology deals. Attitudes, as with all other phenomena subject to change, tend toward stability. In this respect, psychology has recognized that the more stable an attitude, the more is violence or total authority necessary to accommodate change. The issue of violence in the present context is, of course, that which is attendant to conflict arising from massive and relatively sudden confrontation of significantly alien cultures.

Although psychologists have achieved comparative refinement in descriptive categorizations of individual and communal conduct, they have not established better descriptive generalizations than the psychological classifications of Hippocrates; e.g., sanguine, phlegmatic, choleric and melancholic. As observed by A.L. Kroeber, "prescientific as both the Hippocratic dispositions and their supposedly causative humors are, the dispositions at any rate possess a degree of shrewd, empirical validity." Although certainly not scientific, identification with one or more of the four dispositions, with their hint of empirical validity, can assist in speculating with reasonable accuracy on the type of individual and group personality reactions to certain extrinsic innovations which affect the stability of a given culture.

A difficulty in this type of speculation lies in the fact that many similar cultures are represented by people with significantly diverse national or

[24]A.L. KROEBER, ANTHROPOLOGY: BIOLOGY AND RACE 166 (1963).

parochial psychological characteristics; e.g., Western Europe. The converse of this appears true where temperaments are similar, but cultures are distinguishable. In any event, the pivotal point is the apparent psychological flexibility of the individual and group with respect to a culture being partial rather than absolute. There is, therefore, a certain amount of play between psychological characteristics and their integrated response to varying cultures in terms of the perpetuation or discard of certain cultural values. It seems apparent that this area of play, or give, between specific psychological characteristics and a given ecological environment (including variations in cultural values) may be expressed in terms of intercultural accommodation and cooperation.

Although nationalism and ethnic sovereignty "have many deep roots" in the multifaceted social fabric of humanity, the "processes of communication are the basis (sic) of the coherence of societies, cultures and even of the personalities of individuals. . . ." As indicated above, one of the most significant and influential forms of inter-society, or inter-cultural, communications is commerce—specifically, evolving economic interdependence. When economic interaction occurs with little or no regard for cultural institutions attendant to commercial habits, the consequence often is the destruction or unreasonable compromise of those institutions, especially when the two societies involved are not of proximate economic parity. Many unsophisticated, but essential, cultural habits of an economically lesser-developed society can be destroyed with traumatic suddenness that is far-reaching and often subtle. Introduction of new and radically different economic principles, of new methods of manufacturing, and of new services to satisfy alien habits and customs, can easily destroy important indigenous cultural patterns—particularly in primitive or precommercial societies.

In areas of economic intercourse, where such discontinuities exist as currency differences, trade quotas and tariffs and transportation capabilities, monopolistic competition is likely to develop—particularly when the societies involved are not trading initially at arms length. These discontinuities, coupled with distinctly alien habits and customs attendant to commercial activities ultimately can lead to a conflict between two or more trading societies in which commercial benefits decrease in significance proportionate to the extent of cultural compromise. Indeed, as history has shown, commerce executed from a strictly economic view can not only destroy a particular culture, it can undermine completely a social fabric without accommodation of the participants in the dominant culture.

As the quality of communication processes are the bases for coherence

of local societies, so also are they the bases for dissipation of regional parochialism and a consequent establishment of a supra-culture which is shared by two or more basically alien cultures. Creation of a supra-national, or truly international, culture does not of itself necessitate destruction of basic characteristics essential to an indigenous trading society. Although one may often speak of the rigidity or flexibility of a particular culture or social organization, the controlling principle behind such rigidity or flexibility involves the learning capacity—both of the individual and of the society. According to K.W. Deutsch, learning capacity of an individual or organization is "the ability . . . to reallocate or recommit a large part of its resources to new uses, without destroying the organization as a whole. 'Learning capacity,' in this sense, is proportionate to the uncommitted resources of the system." If a regional or local culture is to share cultural characteristics on a broader level with other basically alien cultures, the representatives must learn to "communicate with each other and to understand each other well beyond the mere interchange of goods and services." In this process of understanding, quality of communication is essential; learning capacity is essential to quality communication; and amount and flexibility of resources are essential to learning capacity.

The methods historically used to understand alien national or ethnic traits in order to create a supra-cultural rapport (whether for political or commerical objectives, or both) have evolved for the most part on an *ad hoc* basis. Until the nineteenth and early twentieth centuries, the principal approach of technologically advanced cultures was to assume that technological advancement was, itself, a primary objective of all societies. Therefore, a common denominator existed in all cultures. Unfortunately, in these circumstances, intercultural relations were attempted usually on the level of the dominating culture's technology. Little, if any, consideration was given to the need for a specific technology, let alone the customs necessary to accommodate a non-evolved state-of-the-art.

Indeed, little attention was given to whether certain technologies were responsive to the ecological and cultural requirements of an alien ethnic community. The method adopted to *understand* the consequent cultural distinctions which emphatically manifest themselves, often in conflict, was an expedient variation of empathy. Although this form of quasi-empathy (prediction of other people's behavior by comparing it with our own) often provides a valuable instrument of measurability in predicting the behavior of alien cultures, it can, and quite often does, fail with disastrous consequences in circumstances of rapid social change. The success in overcoming nationalism, as a cultural concept, through the "imaginative projec-

tion of one's own consciousness into another being" diminishes almost proportionate to the rapidity with which a particular culture changes. In contemporary history, widespread socio-ideological revolutions are occurring with a speed and intensity that defy effective use of empathy.

Another long-standing erroneous approach to identifying with alien cultures, or dissipating those traits in conflict, has been the use of legal theory, principally by Western political theorists, to permit the predictability of alien conduct. Unfortunately, the general trend has been dictated by imperialism with the often tragic imposition of a legal framework on an alien culture, and without regard to consequent destruction of indigenous legal theory and interdependent social fabric. History shows us that the forceful imposition of the Western style rule of law has often been rejected, principally because the conduct predicted thereby was not the conduct of which the indigenous community was capable—either ecologically or culturally.

VII. Quality Communication, Learning Processes and Intercultural Assimilation or Accommodation

The understanding of alien cultures, be they localized or politically described as national characteristics, can be an all-or-none proposition, with little room for successful interaction through self-identification or empathy. The extent of successful interaction or identification of cultural conduct depends almost entirely upon the quality of communication between representatives of two or more interacting cultures. Directly related to the quality of communication are the learning capacity and characteristics of the cultural groups. The degrees of assimilation, accommodation, or integration of the cultures depends to a great extent upon the speed with which these objectives are approached. Put more simply, the success of intercultural interaction depends upon the speed with which quality communication is imposed upon the learning capacities dictated by the characteristics of specific cultures.

The degree to which one culture may be assimilated by, or integrated into, another culture, pivots upon the reduction or destruction of "competing information" provided by standardized or stable and shared experience, and by "reducing or repressing the unassimilated responses to which it would give rise in the present." In any event, this type of destruction of experience and repression of responses indicates an unacceptable level of *learning* destruction. To the extent "that a rich structure of information and habits from the past is essential to satisfactory life and efficient performance" of representatives of a "victimized," or nondominant, cultural group, those representatives may well find themselves even

more poorly equipped to respond successfully to the demands and requisites of a technologically and socially modern civilization. Obviously, much time and directing of uncommitted resources to raise the level of learning capacity will be essential in the development of new habits, social patterns and linguistics. If these new patterns and habits are not absolutely essential to the successful response of a cultural grouping to its environment .(i.e., the mixture of new and old), correspondingly fewer uncommitted resources will be available for learning technological skills which are required for commercial relations with advanced industrial societies. Such consequences often are part and parcel of attempts at rapid cultural assimilation or integration. On the other hand, slower assimilation of one group's alien characteristics by another might leave more learning time to accommodate into a cultural framework new technology made available by the contact.

The consequence of rapid assimilation, or even massive but superficial contact among alien cultures, may well be the violent rejection of the dominant culture or the total destruction of cultural characteristics developed from a stream of historical and contemporary shared experiences in daily life. If two or more alien cultures can identify and pursue a "special niche" in the common or supra-culture arising from interaction, sufficient time may be allowed for particular representative habits and customs of one culture to change or compromise to the point of successful accommodation of those of another participating culture without violent conflict. It is, of course, the means of avoiding conflict from massive and rapid cultural confrontations with which the present discussion is concerned.

Finally, recognition, isolation and evaluation of the root influences shaping the phenomena of nationalism reveal man's social world not as one of reasonably stable uniformity, but rather as one of heterogeneous and homogeneous pockets of cultural settlements and clusters of defined subcultures; one of varying "modes of transport . . . areas and centers of language, division of caste and class, barriers between markets, sharp regional differences in wealth and interdependence, and . . . uneven impact of critical historical events and social institutions."[25] Together, these characteristics form a pattern of significantly differentiated geo-cultural regions, nations, and even alien subcultural communities within a national culture. Obviously, the task of utilizing quality communication to permit the spread of technological innovations without bringing basic, but alien, cultural norms into irreconcilable conflict, or without complete destruction of one or more interacting cultural fabrics, is one which involves greatly subjec-

[25]*Op. cit., supra,* note 23 at 161.

tive goals and extremely sophisticated procedures of implementation. However, assuming this to be the preferable alternative to continuing regional and world conflict through abrupt cultural confrontations, it is important to evaluate the approaches available which deal with quality communication as a means of permitting diffusion of technology and advanced social theory in the absence of rejection and violent reaction.

In addition to the patent forms of direct communication, one of the most significant ancillary (but often more influential than the formal, verbal, written and pictorial approach) modes is the "conscious awareness" of implied meanings with variations in interpretation dictated by specific cultural habits, customs, and peculiarly-evolved learning processes. Integral to conscious awareness is the phenomenon often referred to as the "silent language," a phenomenon acutely significant in visual confrontations. In view of this, there should be a logical concern with the quality of information exchanged in the communication process, and the bearing of the characteristics of the process, itself, on the quality of information it conveys. Within the framework of intense intercultural communication, the concern becomes more acute since, although large numbers or groups of people can collect a great deal more information than can individuals, they are vastly more inept at deciphering and evaluating the data made available to them.

Intrinsic in quality communication is the degree of success in channeling specific information in a manner which avoids disintegration of the significance of that information by extrinsic and unrelated information. The situation has been likened to the insulation of telephone wires as a means of minimizing unwanted static and noise—of maintaining acceptable clarity in conveyance of the primary message. If the objective of intercultural communication—commercial, political, or educational—is the diffusion of technological knowledge and social theory without precipitating cultural conflicts, the principal problem in executing that objective very likely will be the continuing, and presently built-in, "signal-to-noise" ratio. The signal-to-noise ratio is a problem of the communication system which exists at both the transmitting and receiving ends, i.e., the local noise of misinterpretation of the primary signal by segments of both the sending and receiving cultures participating in a communication process.[26]

[26]In this respect, a Yale University psychology group headed by Carl Hovland found that representatives of certain cultural groups were more inclined than others to persuasion in the communication process; that certain representatives were more susceptible to opposing views if their own views were stated with respect by the opponent; and that introduction of the element of fear in communication, although usually rejected by the audience, may at times precipitate respect and pliability of receptiveness in members of an audience. *See,* therefore, C. Hovland, I. Janis and F. Kelley, *Communication and Persuasion* (1954). *Cf.,* Schramm, W., *Mass Communication* in 13 ANN. REV. PSYCHOL. 251-284 (1962).

If objectives of a programmed communications campaign, of which aviation is a medium, include cultural accommodations or integration, as well as economic and social advancement, the problems of penetrating cultural barriers without precipitating conflict are innumerable. Also, they are so uniquely interrelated as to be incapable of isolated study. In many cases, change is extremely difficult in culturally alien audiences. For example, communications to the older and conservative decision-makers in Southeast Asian villages may be irreconcilably repugnant to their deepest social and religious beliefs, and may actually confirm their historical prejudices. History may have taught the leaders of a village or larger community that nature dictates economic operation on a very narrow margin; and often hundreds of years of communal experience have taught the best methods for at least ensuring that narrow margin. Experimentation is a risk they cannot afford to take on behalf of their people. If, for example, an objective of a communications campaign is the economic development of a country or a particular culture, attainment of such an objective involves "a set of human transformations—people to be educated and informed, attitudes and values to be changed, human relationships, customs, social behavior to be reviewed and rethought."[27] The above consequences are of an overwhelming magnitude. Certainly, if a culture is to be economically reoriented to the extent that it relies to a large degree on a relatively unstable base of tourism, strong resistance to such a change and the attendant cultural characteristics introduced, may be expected.

Economic changes and dissipation of deeply-rooted cultural alienations involve a long process—principally because the processes involve disposition of contemporary and indiscriminate pressures for across-the-board changes in almost all cultures, i.e., pressure to close economic gaps among communities, and pressure for changes in political and religious ideologies.

VIII. Conclusion

In the preceding discussions it was seen that not only is aviation an instrument of communication between culturally alien peoples, it is an instrument for rapid, interpersonal communication of varied cultural characteristics. Further, the communications are to a very large extent superficial and challenging to basic tenets of indigenous cultures. Not only are abrupt cultural displacements occurring through the rapid and massive movement of ethnic representatives about the world by private and public promoters of commercial aviation, but indigenous cultures at points of

[27]W. SCHRAMM, MASS MEDIA AND NATIONAL DEVELOPMENT: THE ROLE OF INFORMATION IN THE DEVELOPING COUNTRIES 9 (1964).

destination are being (1) confronted violently, and (2) penetrated by alien cultural concepts of such representatives.

In the evolving patterns of cultural confrontations shown by aviation statistics, three cultures are seen to exist: (1) the indigenous culture, (2) the visiting culture, and (3) the rapidly expanding supra-national culture which appears to be either a hybrid conglomerate of many cultures, a code of cultural avoidance, a culture attitude of universal involvement on the assumption that all cultures respond to universal truths, a tourist's attitude of aloof exposure. In any event, this supra-national culture has slight relative value for basic cultures being confronted.

It has been submitted, herein, that cultural characteristics are not abstract intellectualizations premised upon some indefinable ethic. Rather, they are measurable manifestations and reflections of a society's biological requirements and the unique dictates of its immediate ecosystem. It was pointed out that social groupings, as well as individuals, have basic genetic and acquired differences which tend to reject compromise—or sudden threat of compromise—of security by new technology, methodologies and alien values representing substantially different socio-ecological requirements. The roots of nationalism were explored and it was seen that they are historical, physical, political and psychological in nature, and so much a part of the total ecosystem of a society that they cannot be compromised rapidly without rejection and conflict.

Finally, it was shown that accommodation of alien cultures, as opposed to their attempted integration through force, was an essential requirement for avoiding conflict; that speed and massive communication inundation were destructive of such accommodation; and that accommodation could probably be accomplished within the existing political realities of the world through (1) the normal cultural lag in responding to a stimulus, (2) diversion of anxieties over change by becoming an integral part of the change, i.e., participate in the resulting supra-national culture, (3) avoidance of premising the economy of an indigenous culture on tourism so that basic institutions are not destroyed, and (4) rely on quality communication for contact between two or more alien cultures.

In the present context, quality international communication must become an integral facet of air route structure planning and/or selectivity of passengers. The latter situation, of course, challenges the basis of social contract and is a subject for study in its own right. However, if cultural conflict is to be avoided, it is essential that selective interpersonal communication be considered—much in the same manner as extrinsic propaganda is regulated by national authorities and international accord.